

IN THE CLAIMS

Please amend the claims as follows.

1. (Previously presented) A polymer of Claim 7, wherein said polymer has an average cationic charge density of 2.77 or less units per 100 daltons molecular weight at a pH of from about 4 to about 12.

2. (Previously presented) A polymer according to Claim 1, wherein said polymer is a suds/foam stabilizer having an average cationic charge density from about 0.01 to about 2.75 units per 100 daltons molecular weight at a pH of from about 4 to about 12.

3. (Previously presented) A polymer according to Claim 1, wherein said polymer has a hydroxyl group density of from about 0.5 or less as measured by the Hydroxyl Group Density Equation.

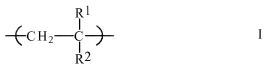
4. (Previously presented) A polymer according to Claim 1, wherein said polymer comprises:

- iv) units capable of having an anionic charge at a pH of from about 4 to about 12;
- v) units capable of having an anionic charge and a cationic charge at a pH of from about 4 to about 12;
- vi) units having no charge at a pH of from about 4 to about 12; and
- vii) mixtures of units (iv), (v), (vi), and (vii).

5. (Cancelled).

6. (Currently amended) ~~A polymer according to Claim 1,~~
A polymer consisting essentially of:

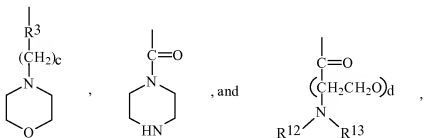
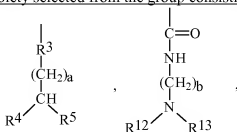
A. _____ at least one cationic monomeric unit A, capable of having a cationic charge at a pH in the range of from about 4 to about 12, having a Formula I:



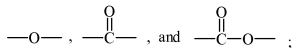
wherein

R^1 is H or an alkyl having 1 to 10 carbon atoms,

R^2 is a moiety selected from the group consisting of

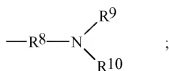


wherein R^3 is selected from the group consisting of



a is an integer from 0 to 16; b is an integer from 2 to 10; c is an integer from 2 to 10; d is an integer from 1 to 100;

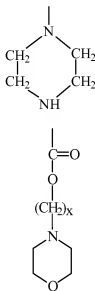
R^4 and R^5 are independently selected from the group consisting of -H, and



R⁸ is independently selected from the group consisting of a bond and an alkylene having 1 to 18 carbon atoms;

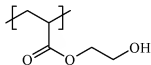
R⁹ and R¹⁰ are independently selected from the group consisting of -H, alkyl having 1 to 10 carbon atoms;

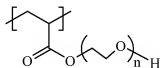
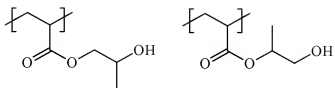
R¹² and R¹³ are independently selected from the group consisting of H and alkyl having from 1 to 10 carbon atoms;



wherein x is an integer from 2 to 10;

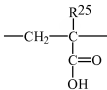
B. at least one monomeric unit B selected from the group consisting of:



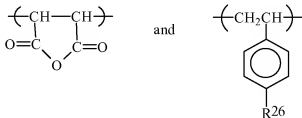


wherein n is an integer from 1 to 50; and

C. optionally at least one monomeric unit C selected from the group consisting of:



wherein R²⁵ is -H or -CH₃,

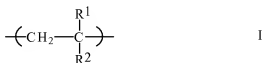


wherein R²⁶ is -H or CH₃,

wherein said polymer has an average cationic charge density of about 0.75 to about 2.25 units per 100 daltons molecular weight at a pH of about 4 to about 12 and a ~~weight-average~~ molecular weight of about 10,000 to about 100,000 daltons.

7. (Currently amended) A polymer consisting essentially of:

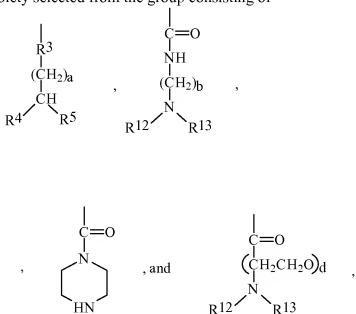
A. at least one cationic monomeric unit A, capable of having a cationic charge at a pH in the range of from about 4 to about 12, having a Formula I:



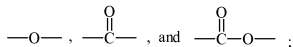
wherein

R^1 is H or an alkyl having 1 to 10 carbon atoms,

R^2 is a moiety selected from the group consisting of

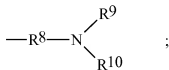


wherein R^3 is selected from the group consisting of



a is an integer from 0 to 16; b is an integer from 2 to 10; c is an integer from 2 to 10; d is an integer from 1 to 100;

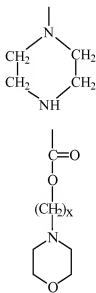
R⁴ and R⁵ are independently selected from the group consisting of -H, and



R⁸ is independently selected from the group consisting of a bond and an alkylene having 1 to 18 carbon atoms;

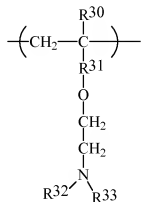
R⁹ and R¹⁰ are independently selected from the group consisting of -H, alkyl having 1 to 10 carbon atoms;

R¹² and R¹³ are independently selected from the group consisting of H and alkyl having from 1 to 10 carbon atoms;



wherein x is an integer from 2 to 10;

9. (Original) The polymer of Claim 7, wherein said at least one monomeric unit A is selected from the group consisting of:



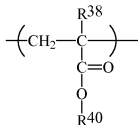
wherein R^{30} is H or $-\text{CH}_3$,

wherein R^{31} is a bond or $-\overset{\text{O}}{\parallel}{\text{C}}-$, and

R^{32} and R^{33} are $-\text{CH}_3$ or $-\text{C}_2\text{H}_5$.

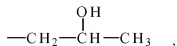
10. (Previously Presented) The polymer of Claim 9, wherein said polymer is a terpolymer,

said at least one monomeric unit B is selected from the group consisting of:



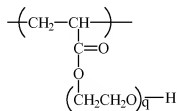
wherein R^{38} is H and

R^{40} is selected from the group consisting of $-\text{CH}_2\text{CH}_2\text{-OH}$ and



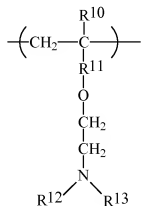
said terpolymer comprising said at least one monomeric unit C,
wherein the molar ratio of said monomeric unit A : monomeric unit B : monomeric unit C
is 1 to 9 : 1 to 9: 1 : 1 to 6 respectively.

11. (Original) The polymer of Claim 7, wherein the at least one monomeric unit B has the formula:



wherein q ranges from 1 to 12.

12. (Original) The polymer of Claim 11, wherein the polymer is a terpolymer, said at least one monomeric unit A is selected from the group consisting of:



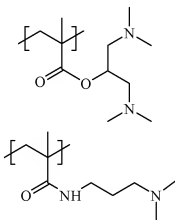
wherein R¹⁰ is H or CH₃,

R^{11} is a bond or $\text{—}\overset{\text{O}}{\underset{\text{||}}{\text{C}}}\text{—}$, and R^{12} and R^{13} are —CH_3 or $\text{—C}_2\text{H}_5$, and said monomer comprises said at least one monomeric unit C.

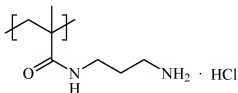
13. (Previously presented) The polymer of Claim 12, wherein the molar ratio of monomeric unit

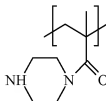
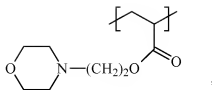
A : monomeric unit B : monomeric unit C ranges from 1 to 9 : 1 to 3 : 9 to 3 respectively.

14. (Withdrawn) The polymer of Claim 7, wherein said at least one monomeric unit A has a formula selected from the group consisting of:



15. (Withdrawn) The polymer of Claim 7, wherein said at least one monomeric unit A has a formula selected from the group consisting of:





16. (Cancelled)
17. (Original) The polymer of Claim 7, selected from the group consisting of:
poly(HEA-co-DMAM-co-AA) terpolymer,
poly(HPA-co-DMAM-co-AA) terpolymer, and
poly(PEG-acrylate-co-DMAM-co-AA) terpolymer.
18. (Previously Presented) The polymer of Claim 7, is poly(HEA-co-DMAM) copolymer.
19. (Withdrawn) A method for cleaning hair or skin comprising applying an effective amount of a cleaning composition comprising the polymer of Claim 1 and at least one deterative surfactant to hair or skin in need of cleaning, provided that a 10% aqueous solution of said composition has a pH from about 4 to about 9.
20. (Withdrawn) The method of Claim 19, wherein said composition further comprises at least one member of the group consisting of a pearling agent, a silicone hair conditioning agent, and an antidandruff ingredient.

21. (Withdrawn) The method of Claim 20, wherein said composition comprises:

- a) said pearlizing agent
- b) a nonionic surfactant
- c) an amphoteric surfactant
- d) a glycol emulsifier
- e) water.

22. (Withdrawn) The method of Claim 20, wherein said composition comprises at least one amphoteric surfactant and said amphoteric surfactant comprises at least one member of the group consisting of:

the alkali salts of alkyl amphodipropionates, alkyl amphodiacetates, alkyl amphoglycinates, alkyl amphopropyl sulfonates and alkyl amphopropionates wherein alkyl represents an alkyl group having 6 to 20 carbon atoms.

23. (Withdrawn) The method of Claim 22, wherein in said at least one amphoteric surfactant the alkyl group is derived from coconut oil or is a lauryl group.

24. (Withdrawn) A method for cleaning hair or skin comprising applying an effective amount of a cleaning composition comprising the polymer of Claim 5 and at least one surfactant to hair or skin in need of cleaning.

25. (Withdrawn) A composition for cleaning hair or skin comprising:

the polymer of Claim 1,

at least one detersive surfactant, and at least one member of the group consisting of a pearlizing agent, a silicone hair conditioning agent, and an antidandruff ingredient, provided that a 10% aqueous solution of said composition has a pH from about 4 to about 12.

26. (Withdrawn) A composition for cleaning hair or skin comprising:

the polymer of Claim 7,

at least one surfactant, and at least one member of the group consisting of a

pearlizing agent, a silicone hair conditioning agent, and an antidandruff ingredient.

27. (Withdrawn) The composition of Claim 26, wherein said silicone compound is an alpha, omega-trimethylsilyl-polydimethylsiloxane having a viscosity at 25°C of at least 25 centistokes and less than 60,000 centistokes.

28. (Withdrawn) A method for washing a fabric article in a washing medium comprising:

applying an effective amount of a laundry cleaning composition comprising the polymer of Claim 1 and at least one detergent surfactant to a fabric article in need of cleaning.

29. (Withdrawn) The method of Claim 28, wherein said composition washes a colored fabric article.

30. (Withdrawn) The method of Claim 28, wherein said composition comprises at least one member of the group consisting of an aminosilicone, a Gemini surfactant, a detergency builder, a bleach, an activator for percompound bleach, a soil suspending agent, a soil antiredeposition agent, a foam suppressant agent and a fabric softener.

31. (Withdrawn) The method of Claim 28, wherein said composition comprises a foam suppressant agent.

32. (Withdrawn) A method for washing a fabric article in a washing medium comprising:

applying an effective amount of a laundry cleaning composition the polymer of Claim 7 and at least one detergent surfactant to a fabric article in need of cleaning.

33. (Withdrawn) A detergent composition for washing a fabric article comprising:
the polymer of Claim 1;
at least one detergent surfactant; and
at least one member of the group consisting of an aminosilicone, a Gemini

surfactant, a detergency builder, a bleach, an activator for percompound bleach, a soil suspending agent, a soil antiredeposition agent, a foam suppressant agent and a fabric softener;

provided that a 10% aqueous solution of said detergent composition has a pH of from about 4 to about 12.

34. (Withdrawn) A method for extinguishing fire comprising applying a foam to a fire, wherein the foam comprises a foaming agent and a polymer of Claim 1.

35. (Withdrawn) A method for treating agricultural substrate selected from the group consisting of plants, soil or seed comprising,

applying to the substrate a foam comprising at least one agricultural chemical selected from the group consisting of a herbicide, a pesticide, and a fungicide, a foaming agent and a polymer of Claim 1.

36. (Withdrawn) A method comprising, injecting into a subterranean formation, a foam comprising a foaming agent and a polymer of Claim 1.

37. (Withdrawn) A method for shaving hair from skin comprising applying foam shaving cream to the skin, said shaving cream comprising a foaming agent and a polymer of Claim 1.

38. (Withdrawn) A method for shaving hair from skin comprising applying a shaving gel to the skin, said gel comprising a foaming agent and a polymer of Claim 1.

39. (Withdrawn) A method comprising applying a depilatory foam to skin, said foam comprising a foaming agent and a polymer of Claim 1.

40. (Withdrawn) A method of cleaning hard bathroom surfaces comprising applying to said surfaces a foam cleaner comprising a foaming agent and a polymer of Claim 1.

41. (Withdrawn) A process for making paper comprising aiding retention of titanium

dioxide on the paper during the paper making comprising treating the paper with an aqueous solution comprising titanium dioxide and a polymer of Claim 1.

42. (Cancelled)

43. (Previously Presented) The polymer of Claim 7, consisting of:

- A. said at least one cationic monomeric unit A,
- B. at least one monomeric unit B; and
- C. optionally said at least one monomeric unit C.

44. (Currently amended) A polymer according to Claim 7, wherein said polymer has [[a weight]] an average molecular weight of about 35,000 to about 300,000 daltons as determined via conventional gel permeation chromatography.

45. (Previously presented) A polymer according to Claim 7, wherein the molar ratio of said monomeric unit A: monomeric unit B : monomeric unit C is 1 to 9 monomeric unit A : 1 to 9 monomeric unit B : 1 to 6 monomeric unit C.

46. (Previously presented) A polymer according to Claim 7, wherein the molar ratio of said monomeric unit A: monomeric unit B: monomeric unit C is 1 to 9 monomeric unit A : 1 to 9 monomeric unit B : 1 to 3 monomeric unit C.

47. (Previously presented) A polymer according to Claim 7, wherein the molar ratio of said monomeric unit A : monomeric unit B : monomeric unit C is 1 to 3 monomeric unit A: 3 to 9 monomeric unit B : 0 to 1 monomeric unit C.

48. (Previously presented) A terpolymer according to claim 47, wherein monomeric unit A is 2-(dimethylamino)ethyl methacrylate, monomeric unit B is selected from the group consisting of 2-hydroxyethyl acrylate, hydroxypropyl acrylate and poly(ethylene glycol) acrylate and monomeric unit C is acrylic acid.